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A Strange Business Case ~ Patrick Brown

## **BCHydro justifies smart meters—mainly grow-ops!**

More than half the BC government's business case for wireless electricity meters depends on 'theft detection.' It justifies the meters by the recovery of over \$700 million of electricity stolen annually from the electricity grid, thought to be mainly for marijuana grow-ops.

There is no actual documentation which justifies the \$700 million estimate of savings from detecting electricity theft. BCHydro estimates how much electricity is lost to grow-ops and other illegal power consumers, but it remains to be seen whether this estimate is trustworthy enough to justify a major part of the price tag. (Not to mention, smart metering will likely destroy this underground economy, unless the crop is legalized, and so the lost revenue will not still not flow into BCHydro's coffers.)

### **No Oversight by BCUC**

The billion-dollar smart meter installation, scheduled to start on the Gulf Islands early this summer, and then spread throughout the province, is a part of the government's energy program. So committed to the program were the BC Liberals, that legislation was passed to exempt any examination by BC Utilities Commission of the feasibility, technology, and benefits of the smart meter program.

### **Other Benefits**

There are, of course, other benefits to the installation of 1.9 million smart meters throughout the province. One is the obvious one—meter readers are no longer needed—though how these jobs will be replaced is not clear and most of those cost saving will also removed from BC's working economy. Services can be also turned off and on remotely, no longer requiring a visit to the customer's premises. (Don't be late with your payment.)

The Present Value of these savings is estimated at about \$330 million. (Present Value, or PV, takes into account the

time when future benefits are expected to occur—the longer it takes to realize them the less they are worth.)

Power outages can also be detected by smart meters and BCHydro's monitoring system; nowadays, quite often BCHydro doesn't know the power is out until the customer calls—as is well known to Gulf Island users. And when Hydro crews fix the problem, often working in the dark and awful weather, they will no longer have to drive up and down the road to see if everyone has their lights on. But these are not big savings in the overall scheme of things.

From the system point of view, regular hour-by-hour reporting of electricity usage will enable BCHydro to optimize the distribution of electricity and plan 'for generations'. This should enable the company to avoid voltage insufficiencies, such as occurred on the Gulf Islands this past winter. This is expected to result in savings worth \$200 million or more in PV terms. (Will these savings be directed to creating a new green energy economy?)

### **Eat Early & Late or Late & Early**

The continuous monitoring of the customer's electricity consumption is also expected to make possible 'voluntary time-of-use rates', which means that electricity used at a peak time of day—breakfast-time and suppertime, for example—will be charged at higher rates. This sort of thing is expected to provide an incentive to customers to rearrange their electrical energy usage to avoid peak times. To assist them in doing this, the smart meter can transmit data to an in-home readout so the customer can see how much electricity is being used at any particular time. (Sure beats going outside to see how fast the meter is going around! But will they tell us how to beat the expensive peaks before we are paying for them?)

Conservation encouraged by time-of-day rates and

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customer readouts is expected to save BCHydro some \$330 million, in PV terms. However, BCHydro is quick to emphasize that the business case for smart meters does not depend on whether customers will economize on electricity.

Combining all the savings, BCHydro estimates that the PV of benefits is \$520 million more than the cost of the smart meter program.

### **How Smart Meters Work**

Each meter essentially has its own cellphone, through which it reports to BCHydro periodically how much electricity its customer is using. Hydro says that the total transmission time is just a few minutes a day. It's radio frequency transmission, not microwave. Transmissions are encrypted, like bank transactions on the internet. Only a small amount of historical data is stored in the meter itself, so a mobile hacker can't learn much about your electricity use.

Is it a strong signal? BCHydro says no; in terms of microwatts per square centimeter, it's only about

double the strength of a through-the-air TV station signal. It is saying that there's very little radiation. John Blatherwick, former Vancouver Chief Medical Health Officer, now working for BCHydro, claims no health affects.

However, people are asking questions. Some anticipate that their health will be affected by radiation. A group has formed on Salt Spring, Gulf Islanders For Safe Technology (250-537-8899).

### **Economically Worth Doing?**

That question hasn't been asked much, given that the Utilities Commission, which has the power to ask awkward questions, was prevented by legislation from asking about this scheme.

An obvious question seems to be whether it's actually a worthwhile business decision—and that all comes back to that estimate of power lost to theft, and grow-ops.

(Just a thought: we know that grow-ops are important to the BC economy—aren't they deserving of

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the same sort of subsidy as BCHydro has been forced to give to run-of-river power?) 